

What Is Claimed Is:

1. An array substrate for a reflective liquid crystal display device, comprising:
 - a substrate;
 - a gate line on the substrate;
 - a data line crossing the gate line to define a pixel region;
 - a plurality of convex patterns in the pixel region, each convex pattern having a cross-section with a semicircular shape;
 - an organic insulating layer on the plurality of convex patterns, the organic insulating layer being in between the gate line and the data line;
 - a thin film transistor connected to the gate line and the data line;
 - an inorganic insulating layer on the organic insulating layer; and
 - a reflective layer on the inorganic insulating layer, the reflective layer having unevenness corresponding to the plurality of convex patterns.
2. The substrate according to claim 1, wherein the inorganic insulating layer covers the thin film transistor.
3. The substrate according to claim 1, wherein the thin film transistor includes a gate electrode, a first semiconductor layer, a source electrode, and a drain electrode.
4. The substrate according to claim 3, wherein the first semiconductor layer includes an active layer of intrinsic amorphous silicon and an ohmic contact layer of impurity-doped amorphous silicon.

5. The substrate according to claim 3, wherein the organic insulating layer is in between the gate electrode and the first semiconductor layer.

6. The substrate according to claim 5, wherein the inorganic insulating layer includes a drain contact hole exposing the drain electrode.

7. The substrate according to claim 6, wherein the reflective layer is connected to the drain electrode through the drain contact hole.

8. The substrate according to claim 3, further comprising a second semiconductor layer between the organic insulating layer and the data line, the second semiconductor layer extending from the first semiconductor layer.

9. The substrate according to claim 3, further comprising an island shaped metal pattern on the organic insulating layer over a portion of the gate line to form a storage capacitor.

10. The substrate according to claim 9, further comprising a third island shaped semiconductor layer between the organic insulating layer and the metal pattern, the third semiconductor layer having the same structure as the first semiconductor layer.

11. The substrate according to claim 1, wherein the organic insulating layer includes one of benzocyclobutene (BCB) and acrylic resin.

12. A method of fabricating an array substrate for a reflective liquid crystal display device, comprising:

forming a gate line on a substrate having a pixel region;

forming a plurality of convex patterns on the substrate in the pixel region, each convex pattern having a cross-section with a semicircular shape;

forming an organic insulating layer on the gate line and the plurality of convex patterns;

forming a data line on the organic insulating layer, the data line crossing the gate line;

forming a thin film transistor connected to the gate line and the data line;

forming an inorganic insulating layer on the thin film transistor and the organic insulating layer; and

forming a reflective layer on the inorganic insulating layer, the reflective layer having unevenness corresponding to the plurality of convex patterns.

13. The method according to claim 12, wherein the thin film transistor includes a gate electrode, a first semiconductor layer, a source electrode and a drain electrode.

14. The method according to claim 13, wherein the organic insulating layer is formed between the gate electrode and the first semiconductor layer.

15. The method according to claim 13, further comprising forming a second semiconductor layer between the organic insulating layer and the data line.

16. The method according to claim 15, further comprising forming an island shaped metal pattern on the organic insulating layer over a portion of the gate line.

17. The method according to claim 16, further comprising forming a third island shaped semiconductor layer between the organic insulating layer and the metal pattern.

18. The method according to claim 17, wherein the first semiconductor layer, the second semiconductor layer, and third semiconductor layer are simultaneously formed.

19. An array substrate for a reflective liquid crystal display device, comprising:

- a substrate;
- a gate line on the substrate;
- a data line crossing the gate line to define a pixel region;
- a plurality of convex patterns in the pixel region, each convex pattern having a cross-section with a semicircular shape;
- an organic insulating layer on the plurality of convex patterns, the organic insulating layer being in between the gate line and the data line;
- a thin film transistor connected to the gate line and the data line;
- a first semiconductor layer on the organic insulating layer in the pixel region;

and

- a reflective layer on the first semiconductor layer, the reflective layer having unevenness corresponding to the plurality of convex patterns.

20. The substrate according to claim 19, wherein the thin film transistor includes a gate electrode, a second semiconductor layer, a source electrode, and a drain

electrode, and wherein the first semiconductor layer extends from the second semiconductor layer and the reflective electrode extends from the drain electrode.